



## Water Use Assessment

## **Design Stage - Calculation Report**

Certificate Ref: BE44967120 Performance Target: 110 (litres / person / day)

Issued: 01 February 2023 Building Regulations Part G - 110l

Hempton Road - Phase 2 - HT E Number of Bedrooms:

Burrington Estates Occupancy for Calculation Purposes 5

Design Stage

Installation Type	Unit	Capacity/ Flow Rate	Use Factor	Fixed use (I/p/day)	Total Use (I/p/day)
WC's	Volume (I)	3.50	4.42	0.00	15.47
Taps Exc. Kitchen	Flow Rate	5.00	1.58	1.58	9.48
Baths	(1)	180.00	0.11	0.00	19.80
Showers	(l/s)	8.00	4.37	0.00	34.96
Kitchen Taps	(l/s)	8.00	0.44	10.36	13.88
Washing Machines	(I/kgdry)	8.17	2.10	0.00	17.16
Dishwashers	(l/place)	1.25	3.60	0.00	4.50
Waste Disposal	(l/s)				0.00
Water Softener	(l/s)				0.00
Total Calculated Water Use (I/p/day)		•		·	115.25
Grey/Rainwater Reused (I)					0.00
Normalisation Factor					0.91
Total Water Consumption (I/p/day)					104.88
External Water Use Allowance (I)					5.00
Total Consumption Part G (I/p/day)					109.88
Part G Reg Assessment Result					Pass <b>√</b>

The calculation methodology uses the water consumption figures provided from manufacturers' product details. Where details have not been provided, assumed figures have been used to achieve compliance. These must be met in order to satisfy the Part G Calculation for Hempton Road - Phase 2 - HT E. The calculation methodology is to be used to assess compliance against the water performance targets in Regulation 36. It is not a design tool for water supply and drainage systems. It is also not capable of calculating the actual potable water consumption of a new dwelling. Behaviour and changing behaviour can also have an effect on the amount of potable water used throughout a home.



## Appliance/Usage Details

Taps (Excluding Kitchen				Showers			
Tap Fitting Type	Flow Rate Litres/Min	Quantity (No.)	Total per	Shower fitting Type	Flow Rate Litres/Min	Quantity (No.)	Total per
Bathroom sink mixer taps		4	Fitting type 20.00	Shower over Bath		(110.)	Fitting type
satnroom sink mixer taps	5	4	20.00	Shower over Balli Shower	8	2	24.00
				Snower	8	3	24.00
							0
Total No. of Fittings (No.)	)		4	Total No. of Fittings (No.)			3
otal Flow (I/s)			20.00	Total Flow (I/s)			24.00
Maximum Flow (I/s)			5.00	Maximum Flow (I/s)			8.00
Average Flow (I/s)			5.00	Average Flow (I/s)			8.00
Weighted Average Flow (I/s)			3.50	Weighted Average Flow (I/s)			5.60
Flow for Calculation (I/s)			5.00	Flow for Calculation (I/s)			8.00
Baths			T	WCs		D 1 El 1	
Bath Type	Capacity to	Quantity	Total per	AAC Tour	Full Flush	Part Flush	Quantity (No
	Overflow	(No.)	Fitting type	WC Type	Volume	Volume	
Bath	180	2	360.00	Dual flush toilet	4.5	3	4
			_				
otal No. of Fittings (No.)			2				T
Total Capacity (I)			360.00	Total number of fittings			4
Maximum Capacity (I)			180.00	Average effective flushing	volume		3.50
۱۱			40000				
Average Capacity (I)			180.00				
	city (I)		126.00				
Weighted Average Capac							
Weighted Average Capac Capacity for Calculation Dishwashers	(1)		126.00 180.00	Washing Machines			
Weighted Average Capac Capacity for Calculation Dishwashers	L per Place	Quantity	126.00 180.00	Washing Machine	L per Kg	Quantity	Total per
Veighted Average Capac Capacity for Calculation Dishwashers Dishwasher Type	L per Place Setting	Quantity (No.)	126.00 180.00 Total per Fitting type	Washing Machine Type	Dry Load	Quantity (No.)	Fitting type
Veighted Average Capad Capacity for Calculation of Dishwashers Dishwasher Type	L per Place		126.00 180.00	Washing Machine			
Weighted Average Capac Capacity for Calculation Constitution Cons	L per Place Setting	(No.)	126.00 180.00 Total per Fitting type	Washing Machine Type Washing Machine	Dry Load	(No.)	Fitting type
Weighted Average Capac Capacity for Calculation  Dishwashers Dishwasher Type  Dishwasher  Total No. of Fittings (No.)	L per Place Setting	(No.)	Total per Fitting type 1.25	Washing Machine Type Washing Machine Total No. of Fittings (No.)	Dry Load	(No.)	Fitting type 8.17
Weighted Average Capac Capacity for Calculation Conshwashers Dishwasher Type Dishwasher Total No. of Fittings (No.) Total Consumption (I)	L per Place Setting 1.25	(No.)	Total per Fitting type 1.25  1 1.25	Washing Machine Type Washing Machine  Total No. of Fittings (No.) Total Consumption (I)	Dry Load 8.17	(No.)	Fitting type 8.17  1  8.17
Weighted Average Capacity for Calculation  Dishwashers Dishwasher Type  Dishwasher  Total No. of Fittings (No.)  Total Consumption (I)  Maximum Consumption (I)	L per Place Setting 1.25	(No.)	126.00 180.00 Total per Fitting type 1.25 1.25	Washing Machine Type Washing Machine  Total No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I)	Dry Load 8.17	(No.)	8.17 1 8.17 8.17 8.17
Weighted Average Capacity for Calculation  Dishwashers Dishwasher Type  Dishwasher  Total No. of Fittings (No.)  Total Consumption (I)  Maximum Consumption (I/  Average Consumption (I/	L per Place Setting 1.25	(No.)	126.00 180.00 Total per Fitting type 1.25 1.25 1.25 1.25	Washing Machine Type Washing Machine  Total No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I/s) Average Consumption (I/s)	Dry Load 8.17	(No.)	8.17 1 8.17 8.17 8.17 8.17
Veighted Average Capac Capacity for Calculation (Capacity for Calculation (Capacity for Calculation (Capacity for Calculation (Capacity for Capacity	L per Place Setting 1.25 (I) (Ss) Jumption (I)	(No.)	126.00 180.00 Total per Fitting type 1.25 1.25	Washing Machine Type Washing Machine  Total No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I)	Dry Load 8.17 ) mption (I)	(No.)	8.17 1 8.17 8.17 8.17
Weighted Average Capacity for Calculation Capacity for Capacity for Calculation Capacity for Capacity	L per Place Setting 1.25 (I) (Ss) Jumption (I)	(No.)	126.00 180.00 Total per Fitting type 1.25 1.25 1.25 1.25 0.88	Washing Machine Type Washing Machine Total No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I/s Average Consumption (I/s Weighted Average Consur Consumption for Calculati	Dry Load 8.17 ) mption (I)	(No.)	8.17 1 8.17 8.17 8.17 8.17 5.72
Weighted Average Capac Capacity for Calculation Cishwashers Dishwasher Type Cishwasher Total No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I/ Average Consumption (I/ Weighted Average Consumption for Calcula Kitchen Taps	L per Place Setting 1.25 (I) (S) Lumption (I) tion (I/s)	(No.) 1	126.00 180.00 Total per Fitting type 1.25 1.25 1.25 0.88 1.25	Washing Machine Type Washing Machine Total No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I/s Weighted Average Consur Consumption for Calculati	Dry Load 8.17 ) mption (I)	(No.)	8.17 1 8.17 8.17 8.17 8.17 5.72
Weighted Average Capac Capacity for Calculation Cishwashers Dishwasher Type Cishwasher Total No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I/ Average Consumption (I/ Weighted Average Consumption for Calcula Kitchen Taps	L per Place Setting 1.25 (I) (I) (S) (II) (II) (II) (II) (III) (II	(No.) 1 Quantity	126.00 180.00 Total per Fitting type 1.25 1.25 1.25 0.88 1.25	Washing Machine Type Washing Machine  Total No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I/s) Weighted Average Consur Consumption for Calculati  Other Fittings Waste Disposal Y/N	Dry Load 8.17 ) mption (I)	(No.)	8.17 1 8.17 8.17 8.17 8.17 5.72
Weighted Average Capac Capacity for Calculation Cishwashers Dishwasher Cotal No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I/ Weighted Average Consumption for Calcula Citchen Taps Cap Fitting Type	L per Place Setting 1.25  (I) (S) Limption (I) Limption (I/s)  Flow Rate Litres/Min	Quantity (No.)	126.00 180.00 Total per Fitting type 1.25 1.25 1.25 1.25 0.88 1.25 Total per Fitting type	Washing Machine Type Washing Machine  Total No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I/s Weighted Average Consum Consumption for Calculati  Other Fittings Waste Disposal Y/N Water softener	Dry Load 8.17 ) ) mption (I) ion (I/s)	(No.)	8.17 1 8.17 8.17 8.17 8.17 5.72
Weighted Average Capac Capacity for Calculation Cishwashers Dishwasher Type Cishwasher Cotal No. of Fittings (No.) Cotal Consumption (I) Maximum Consumption (I) Weighted Average Consumption for Calcula Citchen Taps Citchen Taps Kitchen Tap	L per Place Setting 1.25 (I) (I) (S) (II) (II) (II) (II) (III) (II	(No.) 1 Quantity	126.00 180.00 Total per Fitting type 1.25 1.25 1.25 0.88 1.25	Washing Machine Type Washing Machine  Total No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I/s Weighted Average Consur Consumption for Calculati  Other Fittings Waste Disposal Y/N Water softener Consumption beyond 4% I	Dry Load  8.17  ) mption (I) on (I/s)  /p/d	(No.) 1	8.17 1 8.17 8.17 8.17 8.17 5.72
Weighted Average Capac Capacity for Calculation Cishwashers Dishwasher Cotal No. of Fittings (No.) Fotal Consumption (I) Maximum Consumption (I) Weighted Average Consumption for Calcula Citchen Taps Citchen Tap Utility Tap	L per Place Setting 1.25  (I) (s) Jumption (I) tion (I/s)  Flow Rate Litres/Min 8 8	Quantity (No.)	126.00 180.00  Total per Fitting type 1.25  1.25 1.25 1.25 0.88 1.25  Total per Fitting type 8.00	Washing Machine Type Washing Machine  Total No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I/s Weighted Average Consum Consumption for Calculati  Other Fittings Waste Disposal Y/N Water softener	Dry Load  8.17  ) mption (I) on (I/s)  /p/d	(No.) 1	8.17 1 8.17 8.17 8.17 8.17 5.72
Weighted Average Capac Capacity for Calculation Capacity for Calculation Capacity for Calculation Cishwashers Cishwasher Cotal No. of Fittings (No.) Cotal Consumption (I) Maximum Consumption (I) Average Consumption (I/ Weighted Average Consumption for Calcula Citchen Taps Cap Fitting Type Citchen Tap Utility Tap  Cotal No. of Fittings (No.) Cotal No. of Fittings (No.)	L per Place Setting 1.25  (I) (s) Jumption (I) tion (I/s)  Flow Rate Litres/Min 8 8	Quantity (No.)	126.00 180.00  Total per Fitting type 1.25  1.25 1.25 1.25 0.88 1.25  Total per Fitting type 8.00	Washing Machine Type Washing Machine  Total No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I/s Weighted Average Consur Consumption for Calculati  Other Fittings Waste Disposal Y/N Water softener Consumption beyond 4% I	Dry Load  8.17  ) mption (I) on (I/s)  /p/d	(No.) 1	8.17 1 8.17 8.17 8.17 8.17 5.72
Veighted Average Capac Capacity for Calculation Cishwashers Dishwasher Type Cishwasher  Total No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I) Veighted Average Consumption for Calcula Citchen Tap Citchen Tap Citchen Tap Cital No. of Fittings (No.) Total No. of Fittings (No.) Total No. of Fittings (No.)	L per Place Setting 1.25  (I) (s) Jumption (I) tion (I/s)  Flow Rate Litres/Min 8 8	Quantity (No.)	126.00 180.00  Total per Fitting type 1.25  1.25 1.25 1.25 0.88 1.25  Total per Fitting type 8.00	Washing Machine Type Washing Machine  Total No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I/s Weighted Average Consur Consumption for Calculati  Other Fittings Waste Disposal Y/N Water softener Consumption beyond 4% I	Dry Load  8.17  ) mption (I) fon (I/s)  /p/d  vested rainw	(No.) 1	8.17 1 8.17 8.17 8.17 8.17 5.72
Weighted Average Capac Capacity for Calculation Cishwashers Dishwasher Cotal No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I) Weighted Average Consumption for Calcula Citchen Tap Citchen Tap Cotal No. of Fittings (No.) Total No. of Fittings (No.) Total Flow (I/s)	L per Place Setting 1.25  (I) (s) Jumption (I) tion (I/s)  Flow Rate Litres/Min 8 8	Quantity (No.)	126.00 180.00  Total per Fitting type 1.25  1.25 1.25 1.25 0.88 1.25  Total per Fitting type 8.00	Washing Machine Type Washing Machine  Total No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I/s Weighted Average Consur Consumption for Calculati  Other Fittings Waste Disposal Y/N Water softener Consumption beyond 4% I  Use of grey water and har	Dry Load  8.17  ) mption (I) fon (I/s)  /p/d  vested rainw  HB taps (I)	(No.) 1	8.17 1 8.17 8.17 8.17 8.17 5.72
Weighted Average Capac Capacity for Calculation  Dishwashers Dishwasher  Total No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I) Average Consumption (I/ Weighted Average Consumption for Calcula  Kitchen Taps Tap Fitting Type  Kitchen Tap  Jtillity Tap  Total No. of Fittings (No.) Total Flow (I/s) Maximum Flow (I/s)	L per Place Setting 1.25  (I) (s) Jumption (I) tion (I/s)  Flow Rate Litres/Min 8 8	Quantity (No.)	126.00 180.00  Total per Fitting type 1.25  1.25 1.25 1.25 0.88 1.25  Total per Fitting type 8.00	Washing Machine Type Washing Machine  Total No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I/s Weighted Average Consur Consumption for Calculati  Other Fittings Waste Disposal Y/N Water softener Consumption beyond 4% I  Use of grey water and har  Total Grey water from Wh	Dry Load  8.17  ) mption (I) fon (I/s)  /p/d  vested rainw  HB taps (I)	(No.) 1	8.17 1 8.17 8.17 8.17 8.17 5.72
Average Capacity (I) Weighted Average Capac Capacity for Calculation Dishwashers Dishwasher Dishwasher Total No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I/ Weighted Average Consumption for Calcula  Kitchen Taps Tap Fitting Type  Kitchen Tap Utility Tap  Total No. of Fittings (No.) Total Flow (I/s) Maximum Flow (I/s) Maximum Flow (I/s) Weighted Average Flow (I/s) Weighted Average Flow Weighted Average Flow	L per Place Setting 1.25 (I) s) umption (I) tion (I/s) Flow Rate Litres/Min 8 8	Quantity (No.)	126.00 180.00  Total per Fitting type 1.25  1.25 1.25 1.25 0.88 1.25  Total per Fitting type 8.00  1 8.00 8.00	Washing Machine Type Washing Machine  Total No. of Fittings (No.) Total Consumption (I) Maximum Consumption (I/s Weighted Average Consur Consumption for Calculati  Other Fittings Waste Disposal Y/N Water softener Consumption beyond 4% I  Use of grey water and har  Total Grey water from Wh Total Available Grey Water	Dry Load  8.17  ) mption (I) ion (I/s)  /p/d  vested rainw  HB taps (I) er Supply (I)	(No.) 1	8.17 1 8.17 8.17 8.17 8.17 5.72